

## 2025 EXAM LIST

S.No	Exam Date	Exam Name
1	February 8, 2025	SPECIAL COMPETITIVE EXAMINATION (TYPIST)
2	February 22, 2025	ASSISTANT PUBLIC PROSECUTOR (GRADE II)
3	June 15, 2025	GROUP - I Services
4	July 12, 2025	Group IV Services
5	July 20, 2025	COMBINED TECHNICAL SERVICES (INTERVIEW POSTS)
6	August 17, 2025	COMBINED TECHNICAL SERVICES (NON - INTERVIEW POSTS)
7	August 31, 2025	COMBINED TECHNICAL SERVICES (DIPLOMA/ITI)
8	September 28, 2025	GROUP II AND IIA SERVICES
9	November 16, 2025	COMBINED TECHNICAL SERVICES (ITI LEVEL-II)

**ASSISTANT PUBLIC PROSECUTOR (GRADE II)**

**(Feb 22, 2025)**

**LCM & HCF (5 Question)**

49. Find the LCM of 12, 14, 19, 25 and 36

- (A) 1197
- (B) 1197000
- (C) 11970
- (D) 119700
- (E) Answer not known

$$\begin{array}{r} 2 \\ 63 \times 19 \\ \hline 567 \\ 63 \\ \hline 1197 \end{array}$$

$$\begin{array}{l} 2 \mid 12, 14, 19, 25, 36 \\ \hline 2 \mid 6, 7, 19, 25, 18 \\ \hline 3 \mid 3, 7, 19, 25, 9 \\ \hline 3 \mid 1, 7, 19, 25, 3 \\ \hline 5 \mid 1, 7, 19, 25, 1 \\ \hline 1, 7, 19, 5, 1 \end{array}$$

$$\begin{aligned} \text{LCM} &= 2^2 \times 3^2 \times 5^2 \times 7 \times 19 \\ &= 4 \times 9 \times 25 \times 7 \times 19 \\ &= 100 \times 63 \times 19 \\ &= 119700 \end{aligned}$$

## ASSISTANT PUBLIC PROSECUTOR (GRADE II)

(Feb 22, 2025)

### LCM & HCF (5 Question)

98. Find the LCM of  $x^2 - 2x - 3$ ,  $x^2 + 3x + 2$  and  $x^2 - 1$

(A)  $(x-1)(x+3)(x+2)(x+1)$

(B)  $(x-1)(x+1)(x+2)(x-3)$

(C)  $(x-1)(x+1)(x+2)(x-2)$

(D)  $(x-1)(x-2)(x+3)(x-3)$

(E) Answer not known

$$x^2 - 2x - 3 = (x-3)(x+1)$$

$$x^2 + 3x + 2 = (x+2)(x+1)$$

$$x^2 - 1 = (x+1)(x-1)$$

$$\text{LCM} = (x+1)(x-1)(x+2)(x-3)$$



## ASSISTANT PUBLIC PROSECUTOR (GRADE II)

(Feb 22, 2025)

### LCM & HCF (5 Question)

99. What is the smallest 5 digit number that is exactly divisible by 144 and 216?

- (A) 10268
- (B) 10368
- (C) 10468
- (D) 10168
- (E) Answer not known



$$\begin{array}{r}
 2 \overline{) 144, 216} \\
 \underline{72, 108} \\
 2 \overline{) 72, 108} \\
 \underline{36, 54} \\
 2 \overline{) 36, 54} \\
 \underline{18, 27} \\
 3 \overline{) 18, 27} \\
 \underline{6, 9} \\
 3 \overline{) 6, 9} \\
 \underline{2, 3}
 \end{array}$$

$$\begin{aligned}
 LCM &= 2^4 \times 3^3 \\
 &= 16 \times 27 \\
 &= 432
 \end{aligned}$$

$$\begin{array}{r}
 4 \overline{) 7 \times 16} \\
 \underline{28} \\
 27
 \end{array}$$

$$\begin{array}{r}
 432 \overline{) 10000} \\
 \underline{8640} \\
 1360 \\
 \underline{1296} \\
 64
 \end{array}$$

$$\begin{array}{r}
 34 \overline{) 12} \\
 \underline{12} \\
 0 \\
 64 \\
 \underline{64} \\
 0
 \end{array}$$

$$\begin{array}{r}
 3 \overline{) 32} \\
 \underline{30} \\
 2 \\
 64 \\
 \underline{64} \\
 0
 \end{array}$$

$$\begin{array}{r}
 10000 \\
 + 368 \\
 \hline
 10368
 \end{array}$$

**ASSISTANT PUBLIC PROSECUTOR (GRADE II)**

**(Feb 22, 2025)**

**LCM & HCF (5 Question)**

100. Find GCD of each pair  $6(x^2 - 3x)$ ,  $(2x + 10)$  whose LCM is  $6x^3 + 12x^2 - 90x$

- (A) 1
- ✓ (B) 2
- (C) 3
- (D) 4
- (E) Answer not known

→ HCF

$$a \times b = \text{LCM} \times \text{HCF}$$

$$\frac{a \times b}{\text{LCM}} = \text{HCF}$$

$$\frac{6\cancel{x}(x-3) \times 2\cancel{x}(x+5)}{6\cancel{x}(x+5)(x-3)} = \text{HCF}$$

2 = HCF

$$6x^3 + 12x^2 - 90x$$

$$6x(x^2 + 2x - 15)$$

$$6x(x+5)(x-3)$$

$$\begin{array}{c} -15 \\ \swarrow \quad \searrow \\ +5 \quad -3 \\ \swarrow \quad \searrow \\ +2 \end{array}$$

## ASSISTANT PUBLIC PROSECUTOR (GRADE II)

(Feb 22, 2025)

### LCM & HCF (5 Question)

40. Find the HCF of  $18x^3 - 24x^2 + 42x - 36$ ,  $3x^3 - 9x^2 + 30x - 24$

- (A)  $-3(x - 1)$
- (B)  $-3(x + 1)$
- (C)  $3(x + 1)$
- (D)  $3(x - 1)$
- (E) Answer not known

$$18x^3 - 24x^2 + 42x - 36$$

$$6 [ 3x^3 - 4x^2 + 7x - 6 ] = 6(x-1)(3x^2 - x + 6)$$

$$= 3 \times 2 (x-1) (3x^2 - x + 6)$$

1	3	-4	7	-6	
	0	3	-1	6	
	3	-1	6	0	→

$6(3x^3 - 4x^2 + 7x - 6)$   
 $\rightarrow (x-1)$   
 $6[3 - 4 + 7 - 6]$   
 $0$

$$3x^3 - 9x^2 + 30x - 24$$

$$3(x^3 - 3x^2 + 10x - 8) = 3(x-1)(x^2 - 2x + 8)$$

1	1	-3	+10	-8	
	0	1	-2	8	
	1	-2	8	0	→

HCF =  $3(x-1)$

## ASSISTANT PUBLIC PROSECUTOR (GRADE II)

(Feb 22, 2025)

### SIMPLIFICATION (3 Question)

41. If  $1 + 2 + 3 + \dots + n = 406$ , then find n

- (A) -28
- (B) 29
- ✓ (C) 28
- (D) -29
- (E) Answer not known

$$1 + 2 + 3 + \dots + n = 406$$

$$\frac{n(n+1)}{2} = 406$$

$$n(n+1) = 812$$

↓  
28 × 29

$$\begin{array}{r} 28 \times 29 \\ \underline{252} \\ 56 \\ \hline 812 \end{array}$$

## ASSISTANT PUBLIC PROSECUTOR (GRADE II)

(Feb 22, 2025)

### SIMPLIFICATION (3 Question)

50. Simplify:  $(2t^2 + 7t + 6) / (2t^2 + 9t + 9) \div (t^2 + 5t + 6) / (3t^2 + 18t + 27)$

- (A) 3
- (B) 1
- (C) 2
- (D) 4
- (E) Answer not known

$$\begin{aligned}
 2t^2 + 7t + 6 &= \underline{2t^2 + 4t + 3t + 6} \\
 &= 2t(t+2) + 3(t+2) \\
 &= (t+2)(2t+3)
 \end{aligned}$$



$$\begin{aligned}
 2t^2 + 9t + 9 &= 2t^2 + 6t + 3t + 9 \\
 &= 2t(t+3) + 3(t+3) \\
 &= (t+3)(2t+3)
 \end{aligned}$$



$$\frac{(t+2)(2t+3)}{(t+3)(2t+3)} = \frac{(t+2)(\cancel{t+3})}{3(\cancel{t+3})(t+3)}$$

$$\frac{\cancel{t+2} \times 3(t+3)}{\cancel{t+3} \times \cancel{t+2}}$$

3

$$t^2 + 5t + 6 = (t+3)(t+2)$$



$$\begin{aligned}
 3t^2 + 18t + 27 &= 3(t^2 + 6t + 9) \\
 &= 3(t+3)(t+3)
 \end{aligned}$$



**ASSISTANT PUBLIC PROSECUTOR (GRADE II)**

**(Feb 22, 2025)**

**SIMPLIFICATION (3 Question)**

51. Simplify  $(72)^5 \div (12)^5 \times (3)^5$

- (A)  $18^5$
- (B)  $5^{18}$
- (C)  $6^5$
- (D)  $3^5$
- (E) Answer not known

*Surd & Indices*  
 ==

$$\frac{(72)^5}{(12)^5} \times 3^5$$

$$\frac{a^n}{b^n} = \left(\frac{a}{b}\right)^n$$

$$= \left(\frac{72}{12}\right)^5 \times 3^5$$

$$a^n \times b^n = (ab)^n$$

*Square*  
 (1-15)

$$= 6^5 \times 3^5$$

$$= (6 \times 3)^5$$

$$= 18^5$$

**ASSISTANT PUBLIC PROSECUTOR (GRADE II)**

**(Feb 22, 2025)**

**RATIO & PROPORTION (2 Question)**

48. Selvan has Rs. 900 and wants to divide it between Manimozhi and Bharathi in the ratio 3 : 2, then how much amount Bharathi can get?  $3x$   $2x$

- (A) 540
- (B) 360
- (C) 340
- (D) 560
- (E) Answer not known

$$5x = \frac{900}{4}$$

$$x = 180$$

$$2 \times 180 = 360$$

**ASSISTANT PUBLIC PROSECUTOR (GRADE II)**

**(Feb 22, 2025)**

**RATIO & PROPORTION (2 Question)**

97. The number of correct answers given by Ramesh and Suresh in a quiz competition are in the ratio 8 : 9. If they had scored a total of 85 points in the competition, then how many points did Suresh get?

- (A) 35
- (B) 40
- (C) 45
- (D) 50
- (E) Answer not known

$$\frac{8x}{9x} = \frac{85}{175}$$

$$x = 5$$

$$9x = 9 \times 5 \\ = 45$$

## ASSISTANT PUBLIC PROSECUTOR (GRADE II)

(Feb 22, 2025)

### PERCENTAGE (1 Question)

89. The population of a town is increasing at the rate of 5% p.a. It was 1200 in the year 2020. Find the population in the year 2023 approximately.

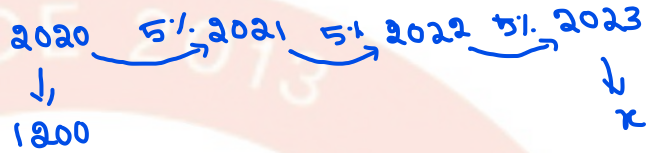
(A) 1389

(B) 1379

(C) 1399

(D) 1369

(E) Answer not known



Method-2  
 $1200 \times \frac{105}{100} \times \frac{105}{100} \times \frac{105}{100} = x$

Method-2  

$$5 + 5 + \frac{5 \times 5}{100}$$

$$10 + \frac{25}{100}$$

$$10 + 0.25$$

$$10.25\%$$

Method-2  

$$10.25 + 5 + \frac{10.25 \times 5}{100}$$

$$15.25 + 0.1125$$

$$15.3625\%$$

$$\frac{115.3625}{100} \times 1200 =$$

Method-3

$$\begin{array}{r}
 1200 \\
 5\% - \quad 60 \\
 \hline
 1260 \\
 5\% - \quad 63 \\
 \hline
 1323 \\
 5\% - \quad 66.15 \\
 \hline
 1389.15
 \end{array}$$

$$\begin{array}{r}
 13.23 \times 5 \\
 \hline
 66.15
 \end{array}$$